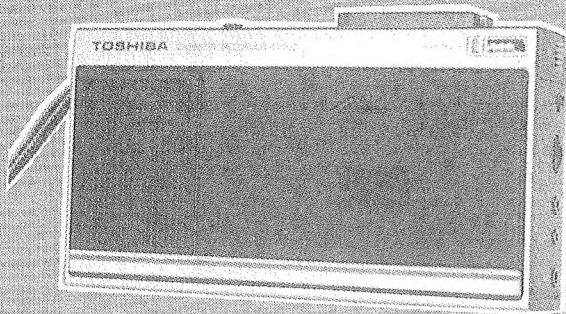


TOSHIBA

CASSETTE RECORDER

KT-P22



SPECIFICATIONS

Track system:	Monaural	Output terminal:	Earphone terminal 3.5 mm
Recording system:	AC bias	Remote terminal:	Remote terminal 2.5 mm
Erase system:	Magnet erasure	Maximum output power:	400 mW
Recommended tapes:	C30 — C120 cassette tapes	Power supply:	DC 6V (SUM-3 "AA" x 4)
Tape speed:	4.8 cm/sec.		External power source supplied to the [DC IN 6V] jack (5.0mm dia. centre contact positive)
Frequency response:	150 Hz to 8 kHz	Dimensions (W x H x D):	163 x 88 x 35 mm
Speaker:	50 mm dynamic speaker	Weight:	420 g (including batteries)
Input terminal:	External microphone terminal [MIC] 3.5 mm		
	Impedance: 400 ohm to 2.2k ohm		
	Input level: 0.5 mV		

Specifications are subject to change without notice due to improvements.

TA, TC, AY, YY

1. BLOCK DIAGRAM

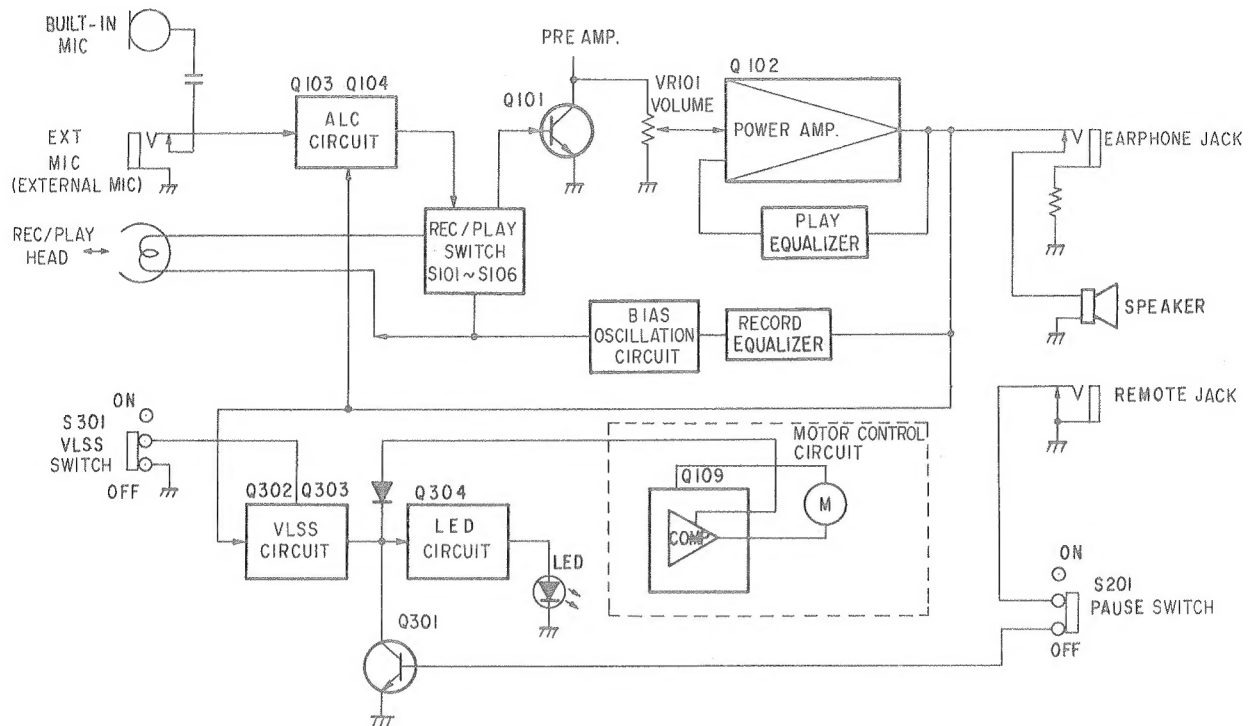


Figure 1.

Name Label TA, TC, AY, YY



2. OPERATING CONTROLS

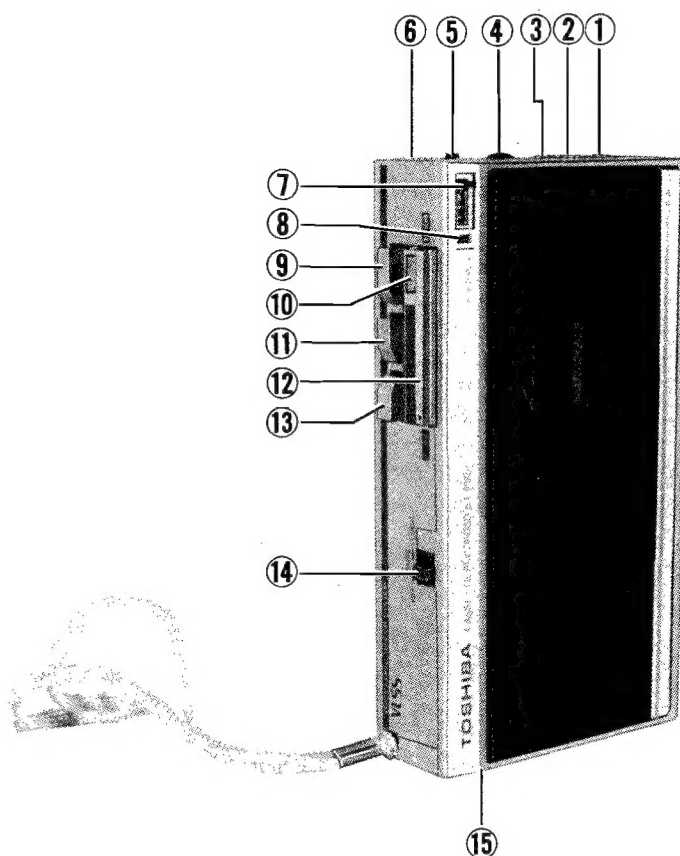


Figure 2.

Control Features

- | | |
|----------------------------------|-----------------------------------|
| ① [EAR] Earphone Jack | ⑩ [●REC] Record Button |
| ② [REMOTE] Jack | ⑪ [▶▶REVIEW] Rewind/Review Button |
| ③ [MIC] Microphone Jack | ⑫ [◀PLAY] Button |
| ④ [VLSS-MIC SENS/VOLUME] Control | ⑬ [◀◀CUE] Fast-Forward/Cue Button |
| ⑤ [VLSS ON/OFF] Switch | ⑭ [PAUSE] Switch |
| ⑥ Built-in Microphone | ⑮ [DC IN 6V] Jack |
| ⑦ Tape Counter and Reset Button | |
| ⑧ [BATT/VLSS] Indicator | |
| ⑨ [■▲STOP/EJECT] Button | |

3. DISASSEMBLY INSTRUCTIONS

■ FRONT CABINET REMOVAL

1. Remove the battery cover.
2. Remove two screws (A) and one screw (B) securing the cabinet back and 2 screws (C) inside the battery box.
3. Remove the lead wire of the speaker to detach the cabinet front.

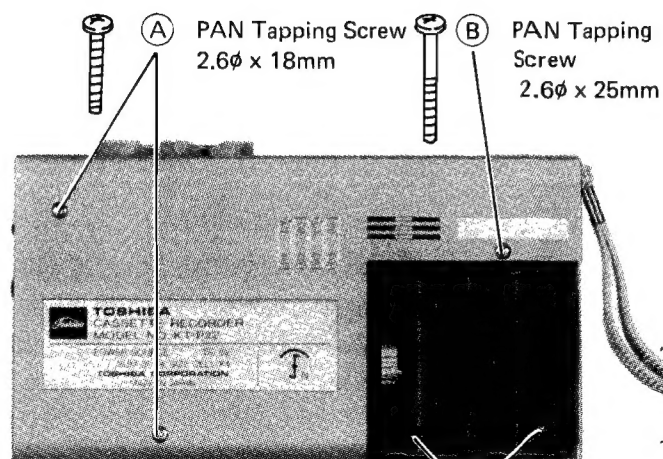


Figure 3.

■ CABINET BACK REMOVAL

1. Remove the cabinet front.
2. Remove two screws (D) and two soldering points (E) on the motor control board.
3. Remove the pause switch and motor control P.C. board.
4. Then detach the cabinet back.

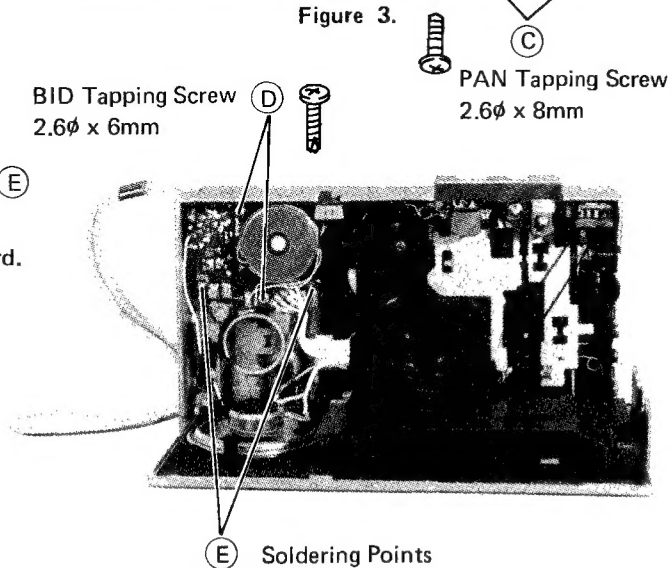


Figure 4.

■ MAIN P.C. BOARD CHECK

1. Remove the mechanism assembly from the cabinet back.
2. Remove two washers (F) securing the main P.C. board and mechanism assembly to reveal the main P.C. board.

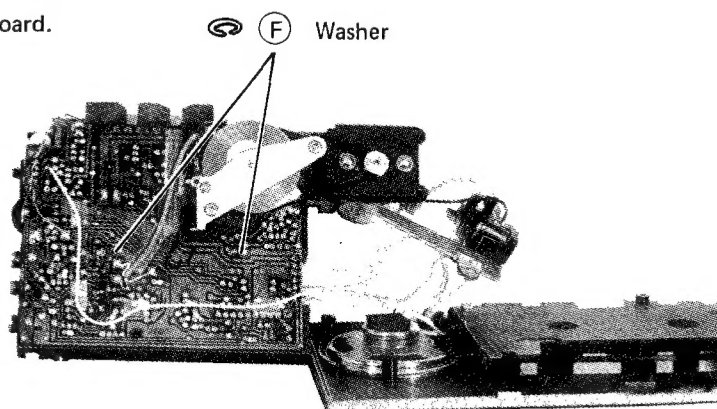


Figure 5.

■ POWER CONSUMPTION

While recording approx. 120 ~ 140mA (without earphone).

■ TORQUE

PLAY	33 ~ 63g.cm
FF	40g.cm or more
REW	60g.cm or more

4. ELECTRICAL PARTS LOCATIONS

Q102

1	2	3	4	5	6	7	8	9
0.74V	2.87V	2.88V	2.69V	0V	2.68V	6.0V	5.7V	2.9V

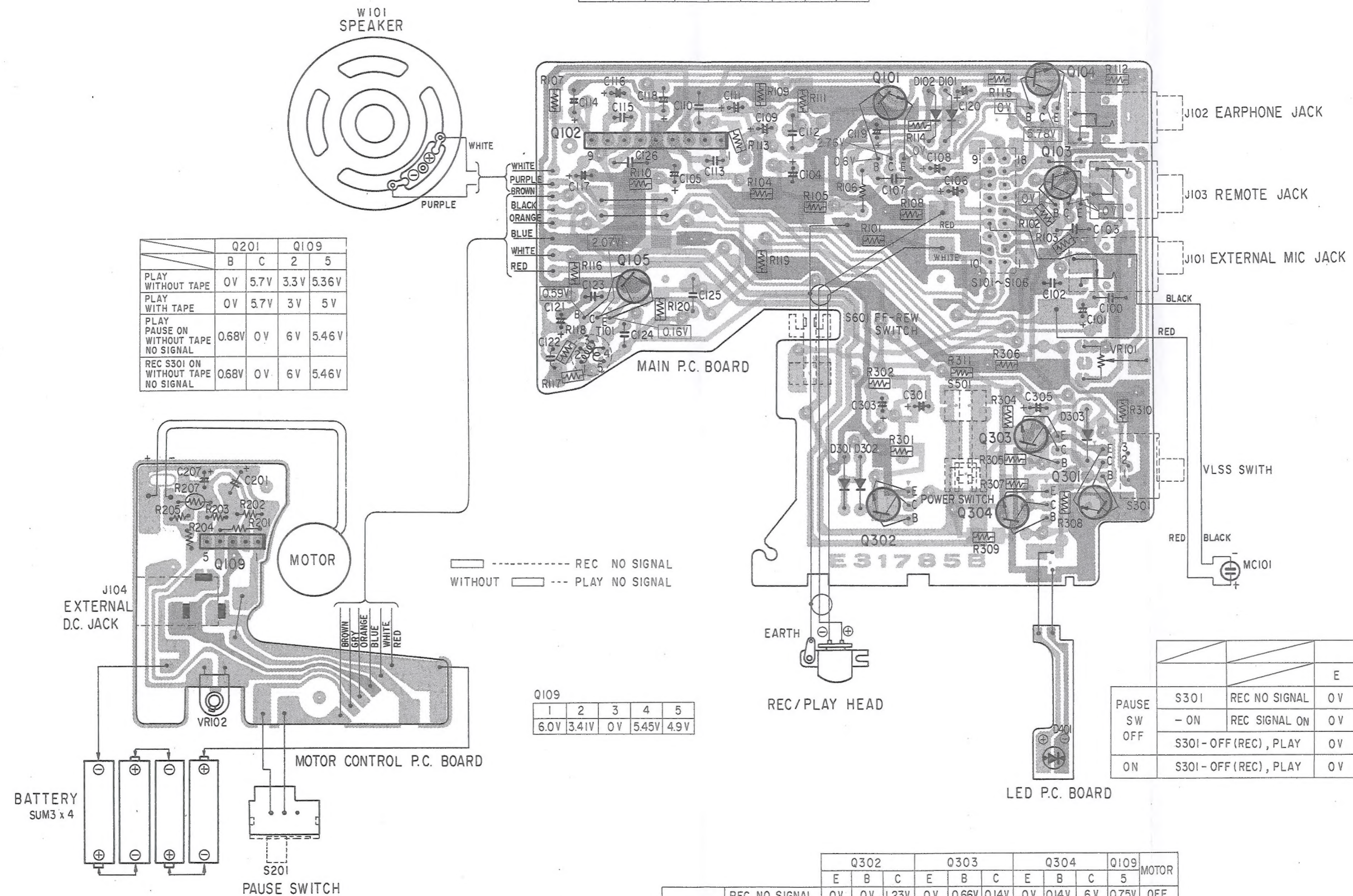


Figure 6.

5. SCHEMATIC DIAGRAM

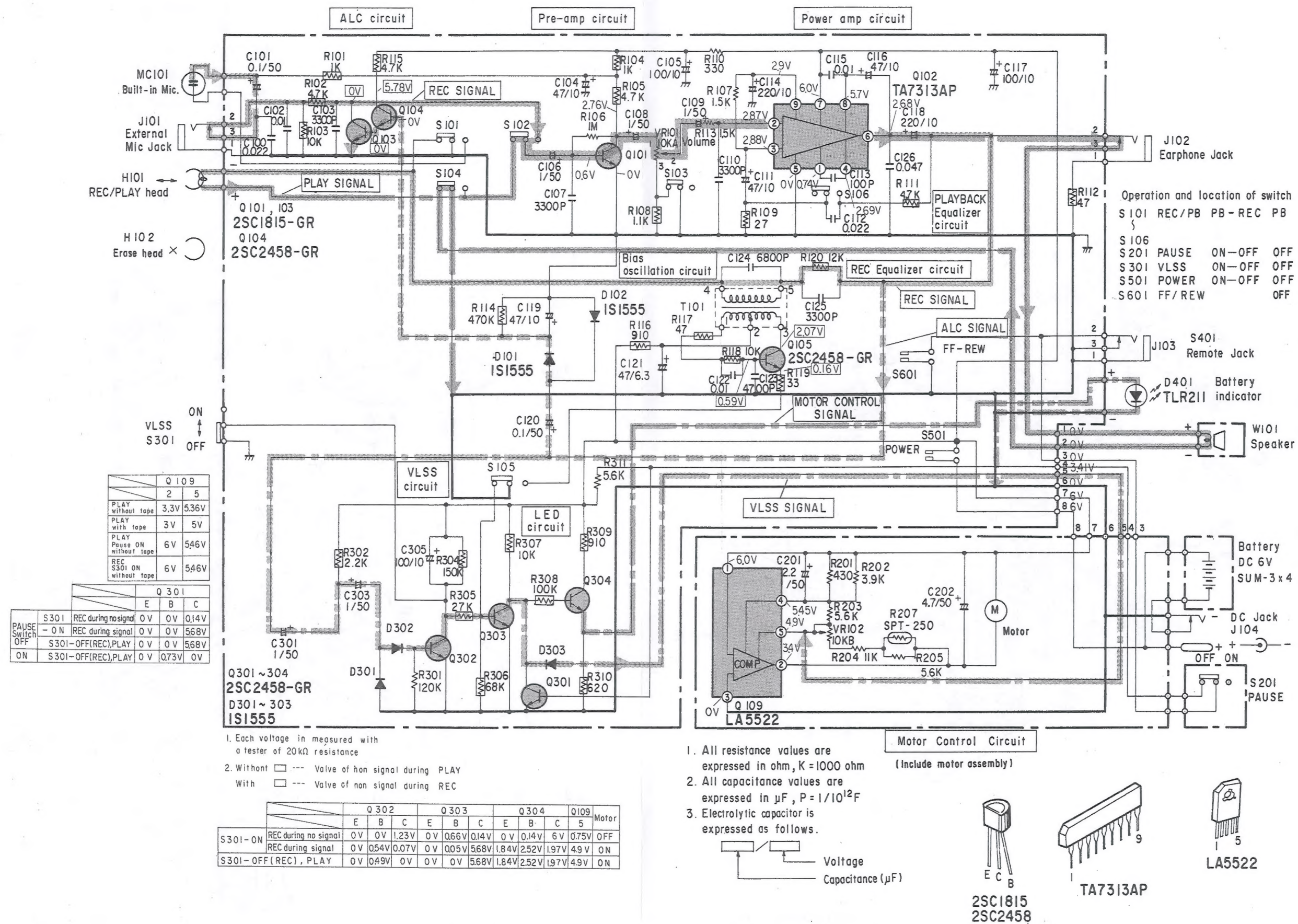


Figure 7.

6-1. MECHANISM EXPLODED VIEW (UPPER)

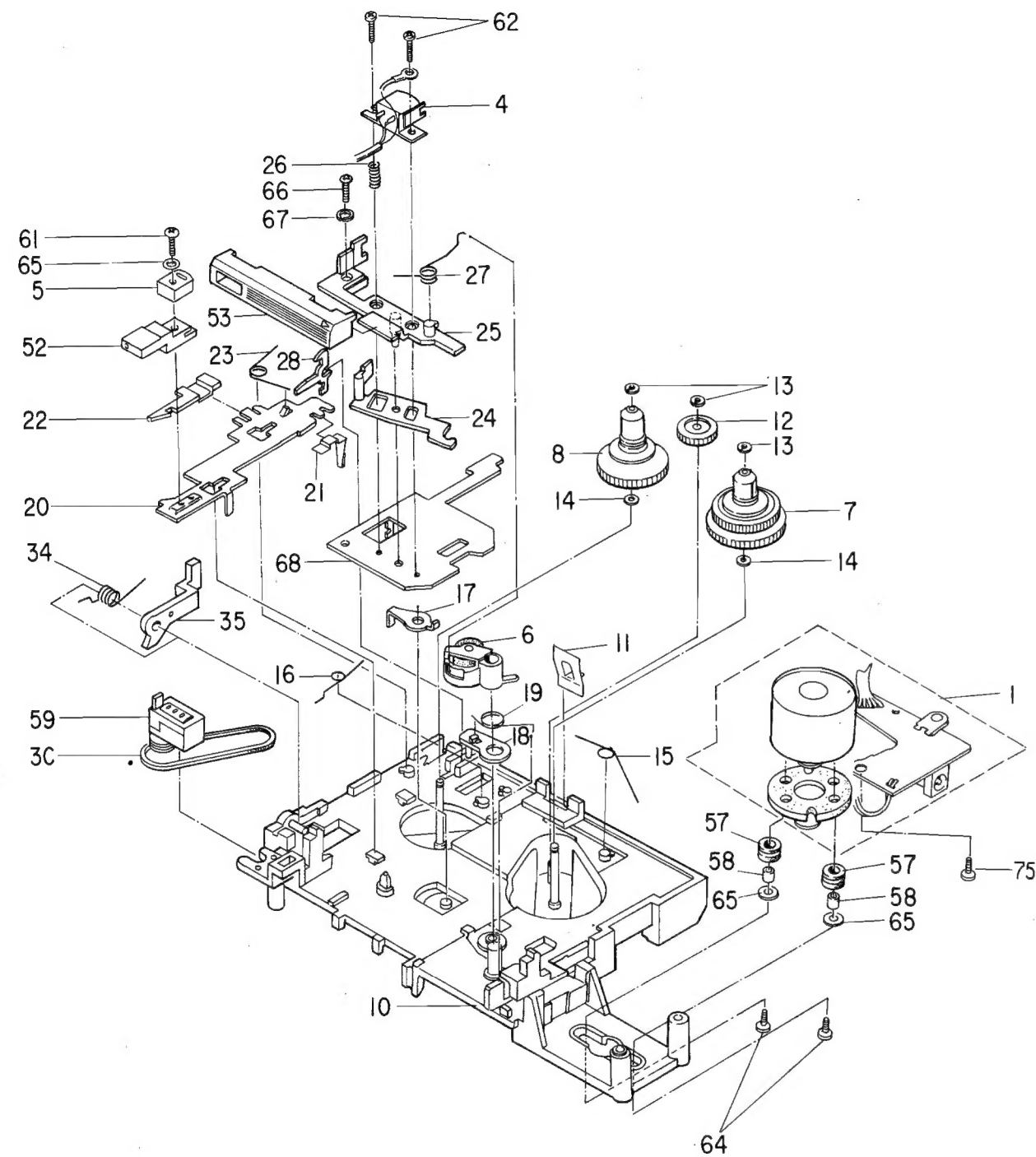


Figure 8.

— 7 —

NOTE: Excluded parts in the Parts List are not available as replacement parts.

6-2. MECHANISM EXPLODED VIEW (LOWER)

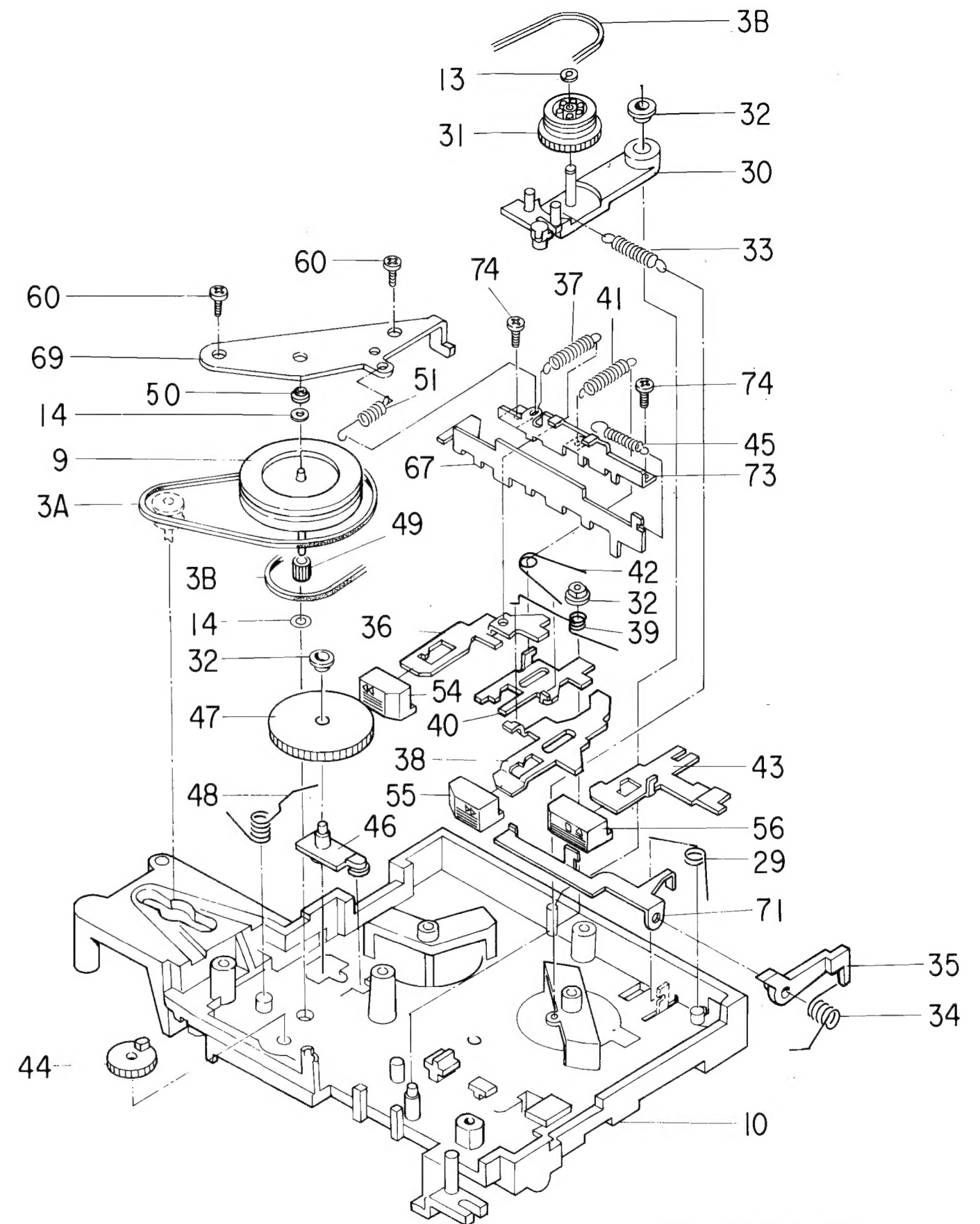


Figure 9.

— 8 —

NOTE: Excluded parts in the Parts List are not available as replacement parts.

7. CABINET EXPLODED VIEW

8. PARTS LIST

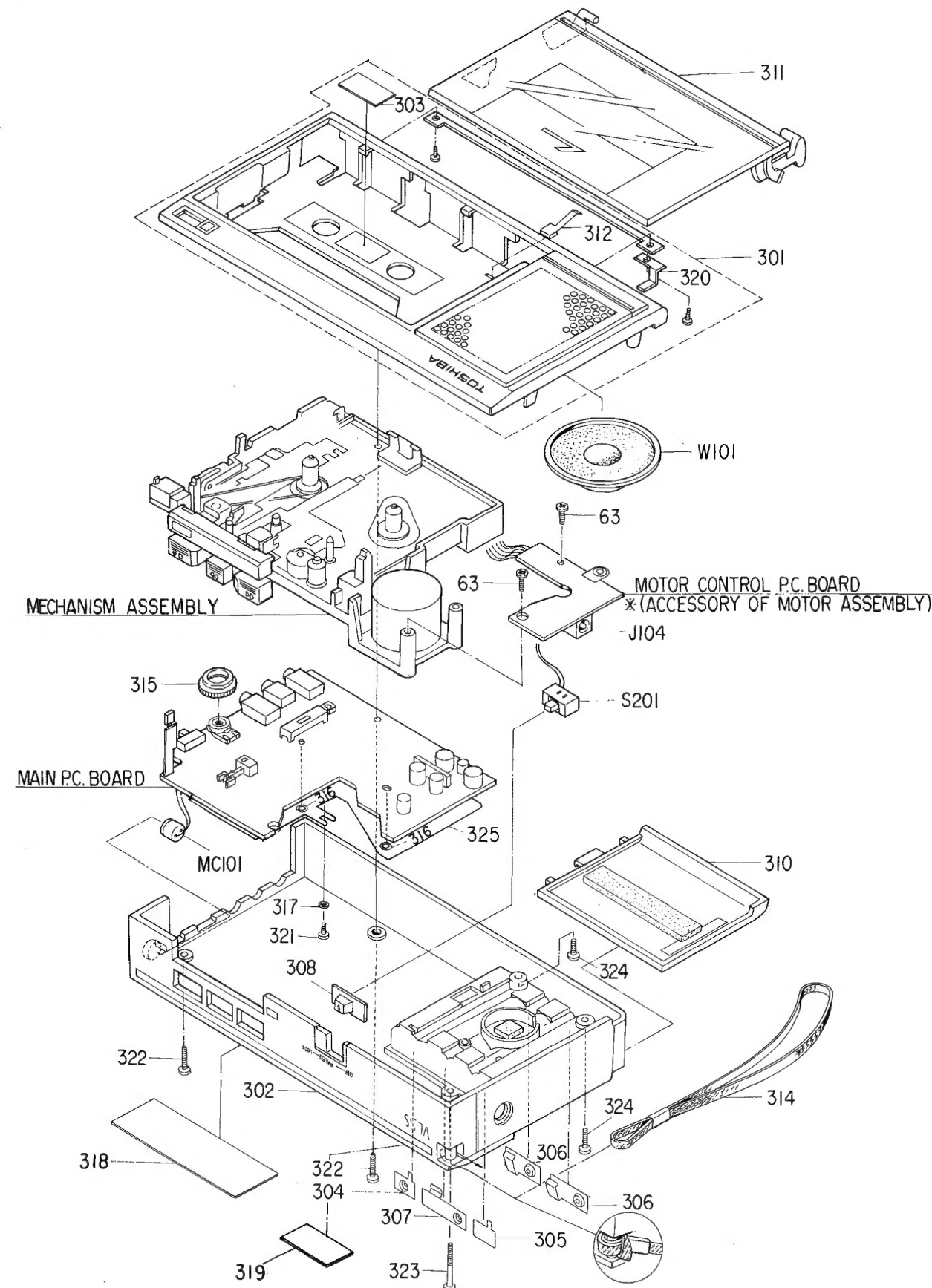


Figure 10.

NOTE: Excluded parts in the Parts List are not available as replacement parts.

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
MECHANISM PARTS			50	25721256	Holder, Capstan
1	25791625	Motor Ass'y	51	25776595	Spring
3A	25755579	Belt, Motor Drive	52	25784065	Button, REC
3B	25755578	Belt, Take-up	53	25784067	Button, PLAY
3C	25755580	Belt, Tape Counter	54	25784071	Button, FF
4	22217430	Head, REC/PLAY	55	25784073	Button, REW
5	22218264	Head, Erase	56	25784076	Button, Stop
6	25717572	Pressure Roller Ass'y	57	25761496	Cushion
7	25712436	Reel Plate Ass'y, Right	58	25726689	Spacer
8	25712437	Reel Plate Ass'y, Left	59	25873277	Tape Counter
9	25717571	Flywheel Ass'y	60	22707983	Special Screw
10	25791597	Mechanism Chassis Ass'y	61	22707508	Screw, 2φ x 12mm, BID
11	25779339	Spring	62	22701290	Screw, 2φ x 6mm, PAN
12	25756370	Gear, FF	63	22707461	Screw, 2.6φ x 6mm, BID, Tapping
13	25766050	Washer, 1.5φ	65	22703318	Washer, 2φ
14	25766042	Washer, 2.1φ	74	22701311	Screw, 2φ x 5mm, BID, Tapping
15	25778120	Spring	75	22707317	Screw, 2.6φ x 5mm, BID, Tapping
16	25778111	Spring	CABINET PARTS		
17	25784062	Lever, CUE/REW	301	25881937	Cabinet Ass'y, Front
18	25784063	Lever, ASO	302	25881830	Cabinet Ass'y, Back
19	25778112	Spring	303	25824436	Reflector Cassette Lid
20	25784064	Lever, REC	304	25839310	Battery Contact 1
21	25779340	Spring	305	25839311	Battery Contact 2
22	25734488	Prevention Board	306	25839312	Battery Contact 3
23	25778113	Spring, REC Lever	307	25839313	Battery Contact 4
24	25784066	Lever, ASO	308	25886002	Knob, PAUSE
25	25781268	Head Holder	310	25882218	Battery Cover Ass'y
26	25777243	Spring, Azimuth	311	25881938	Cassette Cover Ass'y
27	25778114	Spring	312	25779338	Spring, Cassette Cover
28	25784068	Lever, Miserase	314	22993054	Hand Strap
29	25778115	Spring	315	25886001	Knob, VOLUME
30	25713573	MTG. Plate Ass'y, Take-up Pulley	316	25766050	Washer, 1.5φ
31	25758158	Take-up Pulley	317	22703318	Washer, 2φ
32	25761497	Bush, 2.5φ	318	25808550	Name Label
33	25776614	Spring	319	25808551	Label, Stacker
34	25778116	Spring	321	22707015	Screw, 2φ x 2mm, Special
35	25784069	Lever, Eject	322	22707984	Screw, 2.6φ x 18mm, PAN, Tapping
36	25784070	Lever, FF	323	22707985	Screw, 2.6φ x 25mm, PAN, Tapping
37	25776592	Spring	324	22707986	Screw, 2.6φ x 8mm, PAN, Tapping
38	25784072	Lever, REW	TRANSISTORS, ICS AND DIODE		
39	25778117	Spring	Q101	A6317460	Transistor, 2SC1815-GR
40	25784074	Lever, PLAY	Q102	B0324610	IC, TA7313AP
41	25776593	Spring, PLAY Lever	Q103	A6317460	Transistor, 2SC1815-GR
42	25778118	Spring, REW	Q104, 105	A6332440	Transistor, 2SC2458-GR
43	25784075	Lever, Stop	Q109	22117216	IC, LA5522
44	25756367	Gear, ASO	Q301, 302, 303, 304	A6332440	Transistor, 2SC2458-GR
45	25776594	Spring, Lock Lever			
46	25737047	MTG. Take-up Gear			
47	25756368	Gear, Take-up			
48	25778119	Spring			
49	25756369	Gear, Flywheel			

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
D101, 102	A7246703	Diode, 1S1555V	C126	22360331	BL, 0.047mfd, 25V, M
D301, 302, 303	A7246703	Diode, 1S1555V	C301	22440441	EL, 1mfd, 50V
D401	A8603170	Diode, LED, TLR-211, RED	C303	22440441	EL, 1mfd, 50V
ELECTRICAL PARTS			C305	22440257	EL, 100mfd, 10V
T101	22235229	Coil, Oscillator	RESISTORS		
S101~106	22196267	Switch, Slide, PLAY/REC	1. Resistors are Carbon film 1/8W, $\pm 5\%$, unless otherwise noted.		
S201, 301	22196268	Switch, Slide, PAUSE, VLSS	2. PRC is short for the printed resistor circuit. If replacement of the resistor in PRC is required, please use the substitution fixed carbon film resistor of 1/8W, $\pm 5\%$ according to the following list.		
S501	22196269	Switch, Leaf, Power	K=1000, M=1000000		
S601	22196291	Switch, Leaf, FF, REW	R101	22550181	1K ohm, (PRC)
J101, 102	22198022	Jack, 3.5 ϕ , EXT MIC, Earphone	R102	22540518	4.7K ohm, (PRC)
J103	22198023	Jack, 2.5 ϕ , Remote	R103	22550192	10K ohm, (PRC)
J104	22198024	Jack, EXT DC Power	R104	22550181	1K ohm, (PRC)
MC101	22154231	Built-in Microphone	R105	22540518	4.7K ohm, (PRC)
W101	22151988	Speaker, 5cm, 8 ohm	R106	22540450	1M, ohm
EP01	22192333	PC Board	R107	22540512	1.5K ohm
EP02	22192307	Head PC Board	R108	22550181	1K ohm, (PRC)
VR101	22611407	Variable, 10K ohm, Volume	R109	22550162	27 ohm, (PRC)
CAPACITORS			R110	22550175	330 ohm, (PRC)
K= $\pm 10\%$, M= $\pm 20\%$, Work Voltages of Capacitor are DC 50V unless other wise noted.			R111	22540518	4.7K ohm, (PRC)
Abbreviations: CD=Ceramic Disk, EL=Electrolytic BL=Barrier Layer, PS=Polystyrene			R112	22550165	47 ohm, (PRC)
C100	22360290	CT, 0.022mfd, 25V, M	R113	22550415	1.5K ohm
C101	22440283	EL, 0.1mfd, 50V	R114	22550213	470K ohm, (PRC)
C102	22360344	BL, 0.01mfd, 25V, M	R115	22540518	4.7K ohm, (PRC)
C103	22349332	CD, 3300pF, K	R116	22550181	1K ohm, (PRC)
C104	22440255	EL, 47mfd, 10V	R117	22550165	47 ohm, (PRC)
C105	22440257	EL, 100mfd, 10V	R118	22550192	10K ohm, (PRC)
C106	22440441	EL, 1mfd, 50V	R119	22540396	33 ohm, (PRC)
C107	22349332	CD, 3300pF, K	R120	22540523	12K ohm, (PRC)
C108, 109	22440441	EL, 1mfd, 50V	R301	22540439	120K ohm
C110	22349332	CD, 3300pF, K	R302	22550185	2.2K ohm, (PRC)
C111	22440255	EL, 47mfd, 10V	R304	22550206	150K ohm, G, (PRC)
C112	22360290	CT, 0.022mfd, 25V, M	R305	22550197	27K ohm, (PRC)
C113	22360365	CD, 100pF, K	R306	22550202	68K ohm, (PRC)
C114	22440404	EL, 220mfd, 10V	R307	22550192	10K ohm, (PRC)
C115	22360344	BL, 0.01mfd, 25V, M	R308	22550204	100K ohm, (PRC)
C116	22440255	EL, 47mfd, 10V	R309	22550181	1K ohm, (PRC)
C117	22440257	EL, 100mfd, 10V	R310	22550179	680 ohm, (PRC)
C118	22440404	EL, 220mfd, 10V	R311	22550190	5.6K ohm
C119	22440255	EL, 47mfd, 10V	ACCESSORIES		
C120	22440283	EL, 0.1mfd, 50V	AC01	22903637	Owner's Manual, TA
C121	22440279	EL, 47mfd, 6.3V	AC01	22903638	Owner's Manual, TC
C122	22360344	BL, 0.01mfd, 25V, M	AC01	22903639	Owner's Manual, AY
C123	22360325	BL, 4700pF, 25V, K	AC01	22903640	Owner's Manual, YY
C124	22321067	PS, 6800pF, J			
C125	22349332	CD, 3300pF, K			

TOSHIBA CORPORATION
2-1, GINZA 5-CHOME, CHUO-KU, TOKYO 104, JAPAN